

REMARKS/ARGUMENTS

In response to the Office Action dated October 22, 2003, Applicants respectfully request reconsideration.

Claims 33-49 stand rejected under 35 U.S.C. 112, first paragraph's enablement requirement. Applicants respectfully believe that these claims satisfy this requirement.

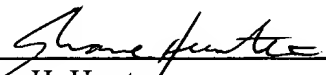
Claims 33-49 stand rejected as failing to have their recitation of apertures and separate excitation signals enabled. Applicants respectfully assert that the apertures are enabled inherently and explicitly by the specification. At page 8, line 8 of the specification, with reference to FIG. 1, an array 17 of radiating elements 18, 20 are referenced. Radiating elements inherently have a radiating aperture, as understood by skilled artisans. Further, page 10, lines 2-4 of the specification explicitly refers to areas of radiating surfaces of radiating elements. These areas of radiating surfaces are examples of apertures from which energy is emitted. Applicants further respectfully assert that the specification enables the recitation of separate excitation signals. Page 8, lines 12-14, 22-24, and 28-29 of the specification, recite that the power amplifiers 15 shown in FIG. 1 are configured to be individually controlled to provide excitation signals 26 of varying amplitude to different radiating elements 18, 20 and that the phase shifters 16 are configured to be controlled to vary the phase of the excitation signals 26. Thus, separate elements 18, 20 receive separate, possibly different amplitude and/or phase signals. The specification thus enables the recitations of apertures and separate excitation signals recited in claims 33-49.

Claims 45-49 stand rejected as failing to have enabled their recitation of aperture centers being displaced from each other by different distances. Applicants respectfully assert that this feature is explicitly enabled. Page 11, lines 23-27 of the specification read that the radiating elements have their centers aperiodically spaced, i.e., that the distance between mass centers of adjacent elements is not the same for all pairs of adjacent elements. Additionally, FIG. 1 shows that the centers of adjacent elements may not be equispaced in opposite directions from a given element. The radiating elements referred to in this portion of the specification may be piezoelectric apparatus (page 9, lines 23-25). The exemplary radiating elements' mass centers correspond to their radiating (or aperture) centers. Thus, the aperture centers, like their mass

centers, are aperiodically spaced. Therefore, the specification does enable the different displacements of aperture centers as recited in claims 45-49.

Based on the foregoing, this application is believed to be in allowable condition, and a notice to that effect is respectfully requested. If the Examiner has any questions, he is invited to call the Applicants' Attorney at the number provided below.

Respectfully submitted,

  
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